

A NEW SPECIES OF *SCIAPUS* FROM CALIFORNIA, WITH A
REVISED KEY TO THE SPECIES OF *SCIAPUS* FOUND
IN AMERICA NORTH OF MEXICO
(DIPTERA: DOLICHOPODIDAE)

GEORGE C. STEYSKAL, *Entomology Research Division, ARS, USDA,*
Washington, D. C.

Among material recently submitted for determination was a species of *Sciapus* that is apparently undescribed. The species is here described and a revised key to the species of the genus found in America north of Mexico is also presented together with a few Caribbean species for comparison. Bibliographic reference to most species will be found in the Catalog of the Diptera of America North of Mexico (1965, Stone, A., et al., eds., USDA, Agr. Handbook No. 276:1696 pp., references on pp. 485-486).

Sciapus californicus, n. sp.

(Figs. 1 - 3)

Male. Length of body, 4.5 mm.; of wing, 4.1 mm.

Color metallic bluish green, the following parts yellowish: basal two antennal segments; proboscis; palpus; posterior margin of side of thorax; all legs, including coxae, up to tip of basitarsi, where they become dark brown to black; lateral edges of first abdominal tergite; large anterior corners of tergites 2, 3, and 4, nearly meeting on dorsum and extending narrowly to posterior corners; venter, except dark brown last preabdominal segment; cerci. Haltere whitish. Wing pale grayish hyaline, veins blackish, except at extreme base of wing, where they are yellowish. Abdominal tergites 2, 3, and 4 with rather narrow posterior margin black. Hypopygial processes and aedeagus also blackish, but apically dark brown. Third antennal segment and arista blackish.

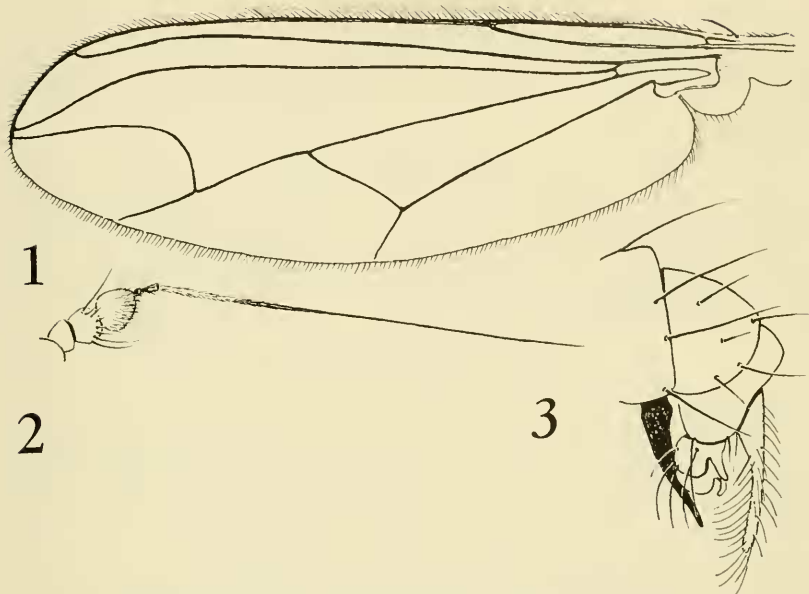
Bristles and hairs black, except the following yellowish ones: hairs of lower head; hairs of palpus (except two long and strong black bristles); coxal bristles and hairs; small basiventral femoral hairs; marginal abdominal hairs; ventral hairs and bristles; hairs of cercus.

White pruinosity covering following parts: face; anterior half of front; small anterior part of mesonotum; sides of mesonotum, including humeri; entire pleura; sides of metanotum. The following parts shining, but covered with very minute and sparse white microsetae: posterior part of front, greater part of mesonotum, scutellum, middle of metanotum, abdominal tergites.

Head with face broad, especially toward antennae; front with strong black bristles only, without small hairs; palpus with two strong curved black bristles; antenna as in fig. 2, basal two segments yellowish, apical segment roundish and black; arista practically apical.

Thoracic chaetotaxy: 1 large and 1 much smaller *dc*; 4 anterior *acr*, hindmost of which quite large; 1 *h*; 1 *sl*; 1 *pa*; 1 *sc* (no additional hairs); 1 yellow, weak *pp*.

Legs long and slender; *cx*₁ with 3 well-developed, apically directed bristles,



Sciapus californicus, n. sp. 1, wing; 2, mesal view of left antenna; 3, left profile of hypopygium.

uppermost at apical fourth of cx ; cx_2 and cx_3 each with 1 bristle; tr_2 with 1 small black bristle mesally directed along f ; f_1 and f_2 a little tapering apically, with small pv preapical bristle; t simple, only t_3 with a few short pv bristles in apical half; tarsi simple, last segment of tarsus₁ and tarsus₂ very slightly broadened and flattened; t_3 with very small ad preapical; basitarsus₁ with 5 equally-spaced, small ventral bristles. Lengths of leg-segments, in mm., from f distad: p_1 : 1.20, 1.43, 1.52, 0.54, 0.36, 0.22, 0.12; p_2 : 1.43, 1.79, 1.70, 0.76, 0.50, 0.29, 0.14; p_3 : 1.61, 2.42, 1.25, 0.63, 0.36, 0.36, 0.23, 0.12.

Wing (fig. 1) with basal section of costa furnished with small dorsoapically directed bristle preceded by 1 or 2 much smaller ones, a short distance basad of humeral crossvein; costa ciliate from just beyond humeral crossvein to end of second vein.

Abdomen cylindrical; postabdomen (hypopygium) as in fig. 3.

HOLOTYPE, male, Villa Park, Orange Co., California, July 14, 1964 (C. Johnson), in U. S. National Museum (no. 67594).

This species is close to *Sciapus unifasciatus* (Say), as shown in the key below; it is also related to *S. rotundiceps* (Aldrich), which has a distinct group of erect ventral bristles on t_2 . It is probably also close to *S. mexicanus* (Aldrich, 1901, Biol. Centrali-Am., Dipt. 1: 365, *Gnamptopsilopus*), but that species has a nonciliate costa and tarsi "but little infuscated."

Sciapus lectus Becker

This species is listed in the North American Catalog as "probably not Nearctic." It was described without definite locality. It is included in the following key by using the characters cited in the original description.

Sciapus delicatus (Walker)

I accept the synonymy of *Psilopodinus pallescens* Bigot and *Sciapus noveboracensis* Van Duzee and refer *Psilopus delicatus* Walker to *Sciapus*, following Parent, 1932, Ann. Soc. Sci. Bruxelles 52 (ser. B, pt. 1, Comptes Rendus): 224. These names are listed under *Condylostylus* in the North American Catalog.

Sciapus unifasciatus (Say)*S. amabilis* Parent, new synonymy

The Parent species is listed as valid in the North American Catalog, but the series of *S. unifasciatus* in the U. S. National Museum includes specimens with the characters of the Parent species and I must consider the latter as a synonym.

Condylostylus pruinosis (Coquillett)

This species is listed under *Sciapus* in the North American Catalog, but Robinson (1965, Misc. Publ. Entomol. Soc. Am. 4 (4): 111) treated it as a *Condylostylus*, and the type and other material in U. S. National Museum agree with this reference.

KEY TO THE SPECIES OF **Sciapus** FOUND IN AMERICA NORTH OF MEXICO.

- 1 (14). Antenna wholly black.
- 2 (3). *F* mostly black; basitarsus₁ enlarged and flattened ("Carolina"). -----
----- **S. pressipes** Parent
- 3 (2). *F* mostly yellow; basitarsus₁ neither enlarged nor flattened.
- 4 (5). *Cx* yellow, *cx*₂ darkened at base; costa with notch before tip of 2nd vein (Ga., Fla.) ----- **S. costalis** (Aldrich)
- 5 (4). *Cx*₂ and *cx*₃ black; costa without notch.
- 6 (9). Wing with dark markings, which may be very faint or even absent in ♀ *S. infumatus*; *cx*₁ with some black apical bristles.
- 7 (8). Wing with 2 separate dark crossbands of small extent; *f*₃ apically and *t*₃ in apical half and with subbasal band blackish (locality ?) -----
----- **S. lectus** Becker
- 8 (7). Wing with crossband through *tp* and basal part of wing dark; *f*₃ and *t*₂ yellow (Mex., Ariz.) ----- **S. infumatus** (Aldrich)
- 9 (6). Wing plain hyaline.
- 10 (11). Body dulled with grayish pruinosity; hypopygium small with partly yellowish lamellae (Ga.) ----- **S. pollinosus** Van Duzee
- 11 (10). Body shining blue or greenish; hypopygium rather large.
- 12 (13). Basitarsus₃ mostly or wholly black; *t*₂ ♂ with row of 8-10 bristles anteroventrally; hypopygial lamellae partly yellow (Fla.) -----
----- **S. trisetosus** Van Duzee

- 13 (12). Basitarsus₃ mostly or wholly yellowish; *t*₂ with at most a fringe-like row of hairs; hypopygial lamellae black (eastern U.S.)
 **S. scintillans** (Loew)
- 14 (1). Antenna at least partly yellow.
- 15 (18). Thorax heavily pruinose; *f*₁ ♂ bare below, in ♀ with several stout pale bristles (♀ *divergens* unknown).
- 16 (17). 3rd antennal segment rounded; tarsus₁ with 4th segment white, widened in middle, 5th segment black (northeastern U. S.)
 **S. pallens** (Wiedemann)
- 17 (16). 3rd antennal segment pointed; tarsus₁ with 4th segment yellow, with projection and all of 5th segment black (Washington)
 **S. divergens** Van Duzee
- 18 (15). Thorax lightly pruinose or shining, obviously metallic.
- 19 (22). Dorsum of thorax yellow with a blue or green stripe.
- 20 (21). Pleura yellow; *t*₂ and basitarsus₂ with erect cilia (W. I.)
 **S. flavidus** (Aldrich)
- 21 (20). Pleura with indistinct dark spot; tarsi plain (Cuba; Southeastern U. S.)
 **S. dorsalis** (Loew)
- 22 (19). Dorsum of thorax wholly metallic.
- 23 (28). *F*₁ of both sexes with series of long stout ventral setae.
- 24 (25). All *cx* yellow; abdomen yellow at base; ♂ costa basally with stout erect thorn not followed by bristles; *f*₁ with only 3 or 4 bristles basally; *f*₂ without apical swelling; *t*₂ and tarsus₂ elongated, but not otherwise specialized; 4 *sc* (eastern U. S.) **S. tener** (Loew)
- 25 (24). *Cx*₂ and *Cx*₃ darkened; *f*₂ darkened basally; abdomen not yellow at base; ♂ costa basally with stout bent thorn followed by small row of longish bristles; *f*₁ with 5 or more basiventral bristles; *f*₂ with apical swelling; 2 or 4 *sc*. (northeastern U. S.).
- 26 (27). 4 *sc*; ♂ *f*₂ with strong apical knob; tarsus₂ with last 3 segments flattened, broadened, and fringed **S. delicatus** (Walker)
- 27 (26). 2 *sc*; ♂ *f*₂ with small apical knob; tarsus₂ with last 3 segments ordinary, but with longish setae **S. filipes** (Loew)
- 28 (23). *F*₁ without long setae below.
- 29 (38). *Cx* almost wholly yellow.
- 30 (31). Hind margin of pleura green; dorsal abdominal segments where yellow so only on sides and edges (Ont.); cf. also **S. mexicanus** (Aldrich) **S. fuscinervis** Van Duzee
- 31 (30). Hind margin of pleura yellow; dorsum of one or more abdominal segments usually yellow from side to side.
- 32 (35). Body 4 mm or less in length.
- 33 (34). Face very narrow throughout; *t*₂ with irregular row of small ventral bristles; dorsum of 1st 4 abdominal segments yellow with green hind margins (Fla.) **S. rotundiceps** (Aldrich)
- 34 (33). Face not unusually narrow; *t*₂ without row of bristles; dorsum of 1st 4 abdominal segments mostly green, only sides or bases yellow (Middle States, N. C.) **S. bicolor** (Loew)
- 35 (32). Body 5 mm or more in length.
- 36 (37). Costa ciliate; abdomen with tergites 1 and 2 green dorsally (Calif.)
 **S. californicus** Steyskal

- 37 (36). Costa not ciliate; abdomen with tergite 1 and basal third of tergite 2 yellow (eastern U. S.) *S. unifasciatus* (Say)
- 38 (29). Cx_2 infuscated at least on outer side for half its length.
- 39 (40). ♂ costa not ciliate; abdomen not pale at base (Cuba).....*S. castus* (Loew)
- 40 (39). ♂ costa ciliate.
- 41 (42). Scutellum with smaller bristles at each side of larger pair (south-eastern U. S. to S. Am.) *S. variegatus* (Loew)
- 42 (41). Scutellum with only a small hair at each side of larger bristles.
- 43 (44). Middle of mesonotum with large patch of long erect hairs (south-eastern U. S.) *S. bradleyi* Van Duzee
- 44 (43). Middle of mesonotum with only the usual hairs and bristles.
- 45 (46). ♂ with angular projection on wing margin near tip of 2nd vein; cx_2 extensively darkened on outer surface (W. I.; southeastern U. S.) *S. psittacinus* (Loew)
- 46 (45). ♂ wing margin without angular projection, at most rather evenly rounded near tip of 2nd vein; cx_2 with only a brown streak externally (eastern U. S.) *S. unicoiensis* Robinson

BLEPHARICERIDAE ON DOMINICA

(DIPTERA)

The Bredin-Archbold-Smithsonian Survey of the island of Dominica, West Indies, collected two species of Blephariceridae of the genus *Paltostoma* Schiner, but as the material consists of females and immature stages only, it is impossible to name the species at the present time. It is quite probable that one of the species is *Paltostoma schineri* Williston, described from St. Vincent, but associated males would be necessary to determine this. The adults could be either *schineri* or an undescribed species.

Hugh Scott (Ann. & Mag. Nat. Hist. (8)15:181-195, 1915) described with great detail and accuracy the larva and pupa of a *Paltostoma* from Trinidad and called it *P. schineri*. The description, as well as Scott's material loaned me by John Smart, was of a larva different from either of the Dominican species, so it is quite probable that the larva described by Scott was misidentified. Larvae of the three species may be distinguished as follows:

1. Each abdominal segment with a closely set row of 5 to 7 stout spines on anterior margin on each side *Paltostoma schineri* of Scott
No such rows of stout spines in this position 2
2. Abdominal segments each with two pairs of stout, acute, erect, yellowish spines, one pair anteriomedial, the other posteriolateral; a smaller, blacker larva *Paltostoma* sp. B
Stout, erect spines absent although there may be very short, blunt, spinelike protuberances in the same position; larger, browner larvae *Paltostoma* sp. A

Collecting data for these forms are: Antrim 1,000 ft. March 11-15, 1956 (J. F. G. Clarke), 3 ♀. Species A: Fond Figs R., Feb. 9, 1965 (W. W. Wirth), 25 larvae; Springfield Estate, July 20-26, 1963 (O. S. Flint), 22 larvae, 9 pupae. Species B: Fond Figs R., Jan. 21 and Feb. 9, 1965 (W. W. Wirth), 41 larvae. ALAN STONE, *Entomology Research Division, ARS, U. S. Department of Agriculture, Washington, D. C.*